

792-344628/AN

** SS 1: Results 1

Search statement: 2

?PRT FU

1/1 DWPI - (C) Derwent

AN - 1992-344628 [42]

XA - C1992-153106

XP - N1992-261712

TI - Polyurethane (urea) with blood-compatibility and gas-permeability -
obtd. by reacting diisocyanate, polysiloxane contg. hydroxy or amino
terminal, and polyether-poly-ol contg. tert. amino gp.,

DC - A25 A96 D22 P34

AW - UREA!

PA - (TOYM) TOYOBO KK

NP - 1

NC - 1

PN - JP04248826 A 19920904 DW1992-42 C08G-018/83 9p *

AP: 1991JP-0025544 19910125

PR - 1991JP-0025544 19910125

IC - C08G-018/83 A61M-001/16 B01D-071/54 C08G-018/61

AB - JP04248826 A

Material which comprises polyurethane or polyurethane urea obtd. by
reaction of diisocyanate, polysiloxane contg. hydroxy or amino
terminal reactive to isocyanate radical, and polyether polyol contg.
tert. amino gp., with opt. other polyamine or polyol. Part or all of
the tertiary amino radical is formed into quat. chloride, using alkyl
halide or active ester. 7-16C are contained in radical of side chain
binding to the quat. nitrogen chloride.

- Pref. polyether polyol contg. tertiary amino contains 50 mol% or more
of diol of formula (I) where R1, and R3 = H or 1-3C alkyl; R2 = 1-10C
alkyl. The material is treated with heparin.
- 4-methyl-4-aza-2,6-heptane diol (1472 wt.pts.), 1,6-hexane diol (591),
and phosphorous acid (12.3) are reacted at 200-220 deg.C for 26 hrs.
and at 220 deg.C in 760 mmHg-0.3 mmHg for 5 hrs. to form an amino
polyether polyol (a). Polydimethyl siloxane diol (1800) of formula
(3), amino polyether polyol(a) (300), 1,4-butane diol (90.1), dibutyl
tin dilaurate (0.3), and 4,4'-diphenyl methane diisocyanate (545) are
added in solvent of tetrahydrofuran (1994) and dimethyl formamine
(3887) and reacted at 40 deg.C for 1 hr. and at 60 deg.C for 15 hrs.
to form base polymer soln. A. Hexyl iodide (4.589) is added to 1 10%
base polymer soln. of DMF (100) and stirred at 70 deg.C for formation
of quat. amino from the tertiary amino, and formed into a 5% soln. of
dioxane. The soln. is coated on a glass panel and dried to form a
polymer film 50 microns thick, which is treated with a 1% heparin aq.
soln. at 70 deg.C for 2 hrs. to form a heparin-treated film. (Dwg.0/0)

MC - CPI: A05-G01B A05-J04 A09-A A10-E19 A12-V02 D09-C01C

UP - 1992-42

★ TOYM P34 92-344628/42 ★ JP04248826-A

Polyurethane (urea) with blood-compatibility and gas-permeability - obtd. by reacting diisocyanate, polysiloxane contg. hydroxy or amino terminal, and polyether-poly-ol contg. tert. amino gp.

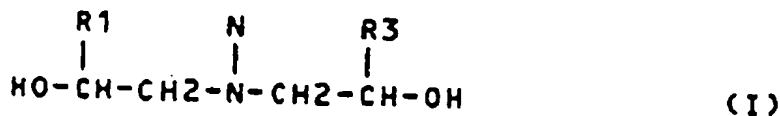
TOYOBO KK 91.01.25 91JP-025544

A25 D22 (A96) (92.09.04) C08G 18/83, A61M 1/16, B01D 71/54, C08G 18/61

Material which comprises polyurethane or polyurethane urea obtd. by reaction of diisocyanate, polysiloxane contg. hydroxy or amino terminal reactive to isocyanate radical, and polyether polyol contg. tert. amino gp., with opt. other polyamine or polyol. Part or all of the tertiary amino radical is formed into quat. chloride, using alkyl halide or active ester. 7-16C are contained in radical of side chain binding to the quat. nitrogen chloride.

Pref. polyether polyol contg. tertiary amino contains 50 mol% or more of diol of formula (I) where R1, and R3 = H or 1-3C alkyl; R2 = 1-10C alkyl. The material is treated with heparin.

4-methyl-4-aza-2,6-heptane diol (1472 wt.pts.), 1,6-hexane diol (591), and phosphorous acid (12.3) are reacted at 200-220 deg.C for 26 hrs. and at 220 deg.C in 760 mmHg-0.3 mmHg for 5 hrs. to form an amino polyether polyol (a). Polydimethyl siloxane diol (1800) of formula (3), aminopolyether polyol(a) (300), 1,4-butane diol (90.1), dibutyl tin dilaurate (0.3), and 4,4'-diphenyl methane diisocyanate (545) are added in solvent of tetrahydrofuran (1994) and dimethyl formamine (3887) and reacted at 40 deg.C for 1 hr. and at 60 deg.C for 15 hrs. to form base polymer soln. A. Hexyl iodide (4.589) is added to 1 10% base polymer soln. of DMF (100) and stirred at 70 deg.C for formation of quat. amino from the tertiary amino, and formed into a 5% soln. of dioxane. The soln. is coated on a glass panel and dried to form a polymer film 50 microns thick, which is treated with a 1% heparin aq. soln. at 70 deg.C for 2 hrs. to form a heparin-treated film. (9pp Dwg.No.0/0)
N92-262712



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